

ABSTRACT

A method of forming a final stacked gate dielectric comprising the following steps. A substrate is provided and an oxide layer is formed upon the substrate. A nitride layer is formed upon the oxide layer. The oxide layer and the nitride layer comprising an initial stacked gate dielectric. The initial stacked gate dielectric is subjected to a plasma nitridation process under an N-containing ambient to form an intermediate stacked gate dielectric. The intermediate stacked gate dielectric is subjected to a plasma reoxidation process to form the final stacked gate dielectric.